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10/796,171	03/10/2004	Dean E. Cropper	CRP002	3497
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THE HARRIS FIRM 922 N STREET, NW STE. 101 WASHINGTON, DC 20001			EXAMINER PHAM, HUONG Q	
			ART UNIT 3772	PAPER NUMBER
			NOTIFICATION DATE 12/31/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

RON@HARRISPATENTS.COM

# Office Action Summary

Application No.

10/796,171

Applicant(s)

CROPPER, DEAN E.

Examiner

Huong Q. Pham

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3772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-29 and 32-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29, 32-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 8/14/07, 11/20/06.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5-8, 13-17, 19-21, 26 – 29, 32, 36- 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Labour et al ( 4,445,505).

Labour et al teaches every claimed feature of the claims including a "concentrated" inward elastic tracking member 80 that operatively fits over, and provides inward pressure against, a patella , wherein the inward tracking member 80 is capable of providing a compressive force against the patella , and . a media tracking member 36, 38 . As for claim 2, note that the inward pressure is capable of being applied through an intermittent and progressively increased tightening of the inward tracking member 80. As for claim 3, note that the inward tracking member 80 directly overlays the patella and the medial tracking member 36, 38 so that medial traction can be placed on the patella. As for claim 5, note that the inward tracking member 80 is adjustable to increase or decrease an amount of inward pressure. As for claim 6, note that the inward tracking member 80 is capable of providing a continuous compressive force against the patella throughout a full range of extension motion of an associated

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knee. As for claim 7, note that the continuous compressive force can be the same throughout the extension motion. As for claim 8, note that the continuous compressive force increases throughout the extension motion. As for claim 13, note that the members 36, 38 are raised member. As for claim 14, note that the inward tracking member 80 comprises an elastic, adjustable strap.

As for claims 15-21, and 26, 32, 36-37, note the comments relative to the claims above. As for claim 16, note that the inward pressure can be applied through an intermittent and progressively increased tightening of the inward tracking member 80 by adjusting the position of the free end of tracking member 80 relative to member 92 (figure 2). As for claim 19, note that the inward tracking member 80 of Labour et al is capable of being adjusted to increase or decrease an amount of inward pressure. As for claims 20-21, note that the inward tracking member is capable of providing continuous compressive force against the patella throughout a full range of extension motion of an associated knee, and wherein the continuous compressive force can be substantially the same throughout the extension motion. As for claim 26, note that the inward tracking member 80 is an elastic strap.

As for claim 27- 29, , note that the device of Labour et al teaches the recited steps of applying the medial tracking member 36, 38 that operatively fits along a lateral side of, and in doing so providing medial traction to a patella having patellofemoral articular tissue; and applying an inward tracking member 80 that operatively fits over, and in doing so would provide inward pressure against, the patella; wherein the inward tracking member 80 would provide compressive force against the patella, thereby

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increasing the contact surface area between the patellofemoral articular tissue and an associated femoral trochlear groove. As for claim 28, note that if desired by a wearer, when the position of inward tracking member 80 is adjusted, the inward pressure is capable of being applied through an intermittent and progressively increased tightening of the inward tracking member. As for claim 29, note that if desired by a wearer, the medial traction applied through the intermittent and progressively increased tightening of the inward tracking member 80 would increasingly stretch lateral patellar connective tissue over time.

As for claims 32, 36- 37, note the comments relative to the claims above.

Claims 1-8, 13- 21, 26- 29 , 32- 37, 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Lehman ( 3,804,084).

Lehman teaches a medial tracking member 60, 62 operatively fits along a lateral side of, and capable of providing medial traction to, a patella having patellofemoral articular tissue; and a "concentrated" inward tracking member 90 that operatively fits over, and capable of providing inward pressure against, the patella; wherein the inward tracking member 90 is capable of providing a compressive force against the patella, thereby increasing the contact surface area between the patellofemoral articular tissue and an associated femoral trochlear groove.

As for claim 2, note that the inward pressure is capable of being applied through an intermittent and progressively increased tightening of the inward tracking member 90. As for claim 3, note that the inward tracking member 90 directly overlays the patella

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and the medial tracking member 60, 62 so that medial traction can be placed on the patella. As for claim 4, note that the medial tracking member 60, 62 is adjustable to increase or decrease an amount of medial traction. As for claim 5, note that the inward tracking member 90 is adjustable to increase or decrease an amount of inward pressure. As for claim 6, note that the inward tracking member 90 is capable of providing a continuous compressive force against the patella throughout a full range of extension motion of an associated knee. As for claim 7, note that the continuous compressive force can be the same throughout the extension motion. As for claim 8, note that the continuous compressive force increases throughout the extension motion. As for claim 13, note that the members 60, 62, are raised member. As for claim 14, note that the inward tracking member 90 comprises an elastic, adjustable strap. As for claims 15-21, and 26, note the comments relative to the claims above.

As for claim 27, note that the device of Lehman has all structure recited in claims 27; with the medial tracking member 60, 62 and inward tracking member 90 wrapped and secured around the knee in a manner similar to the way applicant's medial tracking member and applicant's inward tracking member 90 are wrapped and secured around a knee; wherein in applying Lehman's device to a wearer, one would perform the steps of applying the medial tracking member 60, 62 that operatively fits along a lateral side of, and in doing so providing medial traction to, a patella having patellofemoral articular tissue; and applying an inward tracking member 90 that operatively fits over, and in doing so would provide inward pressure against, the patella; wherein the inward tracking member 90 would provide compressive force against the patella, thereby

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increasing the contact surface area between the patellofemoral articular tissue and an associated femoral trochlear groove. As for claim 28, note that if desired by a wearer, when the position of inward tracking member 90 is adjusted, the inward pressure is capable of being applied through an intermittent and progressively increased tightening of the inward tracking member. As for claim 29, note that if desired by a wearer, the medial traction applied through the intermittent and progressively increased tightening of the inward tracking member 90 would increasingly stretch lateral patellar connective tissue over time.

As for claims 32- 37, note the medial tracking strap 60, 62 , and note the comments relative to the claims above. As for claim 40, note that Lehman teaches the recited steps.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 9-12, 18, 22-25, 33-35, 38-40, are rejected under 35 U.S.C. 103(a) as being unpatentable over Labour et al ( 4,445,505) in view of Cawley et al ( 6,551,264) and /or Lehman ( 3,804,084) .

Note the comments above for the teaching of Labour et al .

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Cawley et al teaches a knee orthosis comprising adjustable medial tracking member 76, 74, 78, 80 ( figure 1) that operatively fits along a lateral side of, and capable of providing medial traction to a patella having patellofemoral adicular tissue, and teaches the use of polycentric hinge ( figure 5).

Lehman teaches a knee support comprising adjustable medial tracking member 60, 62 that operatively fits along a lateral side of, and capable of providing medial traction to a patella having patellofemoral adicular tissue.

In view of the teachings of Cawley et al and/or Lehman, it would have been obvious to one ordinary skill in the art at the time the invention was made to modify the device of Labour et al , by providing polycentric hinge to assist in the motion or bending of the knee , and by providing adjustable medial tracking member in order to adjust the degree of media traction placed on the patella. The provision for a polycentric hinge for a knee brace is well known in the art, and does not provide any unobvious result, and therefore is not patentable over prior art ( for example, note the polycentric hinges of the US patents 4,781,179 and 4,572,170).

As for claim 4, note that the medial tracking member 76, 74, 78, 80 of Cawley et al is adjustable to increase or decrease an amount of medial traction. As for claims 9-11 , 22-24, note figure 5 of Cawley et al. The provision for a polycentric hinge for a knee brace is well known in the art, and does not provide any unobvious result, and therefore is not patentable over prior art ( for example, note the polycentric hinges of the US patents 4,781,179 and 4,572,170). As for claims 12, 25, note the elastic sleeve 12 of Labour et al , and note the member 44 of Cawley et al. As for claims 18, 33-35, 38-39,



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note the comments relative to the claims above. As for claim 40, note that the device of Labour et al , Cawley et al, and/or Lehman, in combination, teaches the recited steps.

Claims 9-12, 22-25, 38-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lehman ( 3,804,084) in view of Cawley et al ( 6,551,264).

Note the comments above for the teaching of Lehman.

Cawley et al teaches a knee orthosis with bicentric hinge ( note figure 5 of Cawley et al) . In view of this teaching of Cawley et al, it would have been obvious to one ordinary skill in the art at the time the invention was made to modify the device of Lehman, by providing polycentric hinge to assist in the motion or bending of the knee . The provision for a polycentric hinge for a knee brace is well known in the art, and does not provide any unobvious result, and therefore is not patentable over prior art ( for example, note the polycentric hinges of the US patents 4,781,179 and 4,572,170).

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Labour et al ( 4,445,505) in view of Lamping et al ( 6,485,448) .

Note the comments above for the teaching of Labour et al .

Lamping et al teaches rubber tubing 8 covered with elastic material 9 ( figure 4 & column 3, lines 40-54). In view of the teaching of Lamping et al , it would have been obvious to one ordinary skill in the art at the time the invention was made to provide this structure for the device of Labour et al to provide more stable or rigid support for the medial tracking member 36, 38.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lehman ( 3,804,084) in view of Lamping et al ( 6,485,448) .

Note the comments above for the teaching of Lehman .

Lamping et al teaches rubber tubing 8 covered with elastic material 9 ( figure 4 & column 3, lines 40-54). In view of the teaching of Lamping et al , it would have been obvious to one ordinary skill in the art at the time the invention was made to provide this structure for the device of Lehman to provide more stable or rigid support for the medial tracking member 60, 62.

### ***Response to Arguments***

Applicant's arguments and the Declarations filed under 37 CFR 1.131, filed on 6/1/2007 , have been fully considered but they are not persuasive. Note the comments relative to the claims above.

Applicant argues that Labour et al does not teach "concentrated inward tracking member" to provide "concentrated inward pressure", and that , in Labour et al , the patella is nested and thus protected from inward tracking by the opening 30 . The examiner does not agree. Note that column 3, lines 3-6 of Labour et al states that " The opening 30 relieves pressure against the patella, prevents abrasion of the skin during vigorous activity of the patient , and increases the flexibility of the brace at the patella. Note that this particular sentence in the Labour et al refers to the purpose of the patella cut out or opening 30 in the elastic sleeve 12. Note that the provision of a patella cut out or opening 30 in a sleeve for the purpose of preventing abrasion of the skin because of

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the friction between the wearer's patella area and the sleeve of the brace during vigorous activity of the patient, and for the purpose of increasing the flexibility of the brace at the patella is very well known in the art. However, in combination with providing the patella opening for the purpose discussed above, Labour et al also provides inward tracking member 80 so that when the inward tracking member 80 is pulled tight across the front of the sleeve, the inward tracking member 80 prevents anterior displacement of the patella through the opening (column 4, lines 30-49). This means that the inward tracking member 80 provides some degree of compressive pressure against the patella in order to prevent anterior displacement of the patella through the opening. Note that inward tracking member 80 also applies pressure to the pad 36 so as to create an effective barrier to prevent lateral displacement of the patella. Applicant argues that "the neoprene fabric mostly used as the elasticized fabric in Labour's brace.....", and "the fabric used at the time of Labour is too thick for the strap 80 to provide inward tracking"... The examiner does not agree. Note in column 2 of Labour et al, lines 45-50 that sleeve 12 is preferably knitted of a soft cotton yarn and an elasticized thread so as to be comfortable on the body. Applicant argues that strap 80 of Labour et al is too short and too wide for inward tracking of the patella. Note that the strap 80 is long enough and wide enough to provide the inward tracking function as recited in the claims. It appears that applicant's inward tracking member shown in figure 1 is just about as wide as the inward tracking member 80 of Labour et al. Applicant argues that "increased tightening of adjustable strap 80 would have the opposite effect of inward force so that such action would in effect tend to push the patella outwardly and away from the

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trochlear groove.....". The examiner does not agree. Note that the 2 functions of strap 80, when pulled tight across the front of the sleeve as in figure 2, is to : 1) apply pressure to the pad 36 to prevent lateral displacement of the patella, and to : 2) prevents anterior displacement of the patella through the opening ( by applying some degree of inward compressive force against the patella).

Applicant argues that Lehman's strip 90 is not a concentrated inward tracking member, and that , the patella is nested and thus protected from concentrated inward tracking by the opening 36, and that, tightened strap 90 compresses only the raised portions that lie around the perimeter of the patella, and not the patella, and that, the increased tightening of adjustable strip 90 would have the opposite effect of inward force so that such action would in effect tend to push the patella outwardly and away from the trochlear groove , and that, Lehman's fabric is too thick for strip 90 to provide concentrated inward tracking ..... The examiner does not agree. Note in figure 4 of Lehman that when the strip 90 compresses members 60, 62, 50, 52, thereby squeezes the area surrounding the patella, similar to the strap 80 of Labour et al, the 2<sup>nd</sup> function of the strip 90 is to provide some degree of inward compressive force against the patella in order to prevent the patella to be pushed outwardly by members 60,62, 50,52.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huong Q. Pham whose telephone number is (571) 272-4980. The examiner can normally be reached on 9:30 AM – 6:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Bianco can be reached on ( 571) 272 - 4940. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

December 19, 2007

  
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12/21/07